APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,196	10/30/2000	Shmuel Shaffer	2705-119	9840

20575 7590 06/02/2006	EXAMINER
MARGER JOHNSON & MCCOLLOM, P.C. 210 SW MORRISON STREET, SUITE 400 PORTLAND, OR 97204	DUONG, OANH L

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/702,196	SHAFFER ET AL.
	Examiner	**Art Unit**	
	Oanh Duong	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 March 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-62</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-62</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-62 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-6, 8, 10, 14-17, 24-27, 30, 33-36, 43-48, 49, 51 and 54-57 are rejected

under 35 U.S.C. 103(a) as being unpatentable over (Schuster) (US 6,170,075 B1) in

view of DeLuca et al. (DeLuca) (US 5,701,312).

Regarding claims 1, 24 and 43, Schuster teaches a method comprising:

a first device establishing a connection with a second device through a packet

switched network according to a packet network communication protocol (col. 1 lines

41-47 and col. 12 lines 1-4);

the first device transmitting to the second device original voice data in original

packets through the connection (col.12 lines 39-48);

generating redundant data by replicating the original voice data (col. 16 lines 10-

14); and

adding at least some of the redundant data to the original packet. (Col.13 lines

18-47).

Schuster does not explicitly teach detecting a packet switch network connection is under utilized, and if the packet switch network connection is underutilized, generating redundant data.

DeLuca teaches a communication system wherein repeat messages are selectively provided (seen in abstract). Deluca teaches detecting the packet switch network connection is under utilized, and if the connection is underutilized, generating redundant data (Figs 2, 4, and 7, col. 5 line 66-col. 6 line 54: DeLuca disclose duplicate message is (generated and) transmitted if controller 210 determines the capacity of the system is not fully utilized, for example, system traffic over communication channels is light).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the step of detecting a packet switch network connection is under utilized, and if the connection is underutilized, generating redundant data as taught by DeLuca into the process of data transmitting in Schuster. One would be motivated to do so to reduce the likelihood of missed data while efficiently utilizing the communication channel (DeLuca, col. 1 lines 30-32).

Claim 33 represents a transmitting device that is parallel to claim 1. Claim 33 does not teach or define any new limitation above claim 33 and therefore is rejected for similar reasons.

Regarding claims 2 and 44, Schuster teaches the first device generates the
redundant data (i.e., network server 18, col. 13 lines 18-20).

Regarding claims 3, 25, 34 and 45, Schuster teaches the first device transmits at
least some of redundant data in additional packets distinct from the original packets
(col. 13 lines 48-56).

Regarding claims 4, 26, 35 and 46, Schuster transmitting the redundant data to
the second device (col. 13 lines 18-20).

Regarding claims 5, 27 and 47, Schuster teaches determining whether a
replication flag is set, and generating the redundant data only if the replication flag is set
(col. 16 lines 10-14).

Regarding claim 8, Schuster teaches the first device generates the redundant
data (col. 13 lines 18-20).

Regarding claim 49, Schuster teaches the first device generates the redundant
data (col. 13 lines 18-20).

Regarding claims 6, 30, 36, 48 and 57, Schuster teaches monitoring an error rate of transmitting, and if the error rate of transmitting is higher than a threshold rate, setting the replication flag (col. 12 lines 13-25).

Regarding claims 10 and 51, Schuster teaches monitoring an error rate of transmitting, and if the error rate of transmitting is higher than a threshold rate, setting the replication flag (col. 12 lines 13-25).

Regarding claims 14 and 54, Schuster teaches a retransmitting device that is part of the connection receiving a next one of the original packets, and wherein if the replication flag is set, the retransmitting device generates next redundant data by replicating next original voice data included in the next original packet, and transmits the next redundant data to the second device (col. 16 lines 10-16).

Regarding claims 15 and 55, Schuster teaches the retransmitting device transmits the next redundant data in at least one additional packet distinct from the next original packet (col. 13 lines 48-56).

Regarding claims 16 and 56, Schuster teaches the retransmitting device imparts at least portion of the next redundant data in a second received original packet (col. 12 lines 37-48).

Regarding claim 17, Schuster teaches monitoring an error rate of transmitting,

and if the error rate of transmitting is higher than a threshold rate, setting the replication

flag (col. 12 lines 13-25).

3.   Claims 7 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schuster in view of DeLuca in further view of Pandula (Pandula) (US 5,640,415).

Regarding claims 7 and 29, Schuster-DeLuca does not explicitly teach securing

additional bandwidth.

Pandula, in the same field of endeavor, teaches securing additional bandwidth

(col. 3 lines 5-16). Pandula teaches such securing additional bandwidth would enable

voice data to be redundantly retransmitted and thereby providing improved bit error

performance and guaranteed data (col. 2 lines 5-10). For this reason, it would have

been obvious to one having ordinary skill in the art at the time the invention was made

to have utilized the securing additional bandwidth of Pandula in the process of

generating redundant voice data in Schuster-DeLuca.

4.   Claims 9, 21-23, 28, 40-42, 50 and 60-62 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Schuster in view of DeLuca in further view of Tsunoda (US

6,516,435 B1).

Regarding claims 9, 28, 40, 50, and 60, Schuster-DeLuca does not explicitly teach retransmitting device receiving a redundancy request; and in response to the redundancy request, setting the replication flag. However, Tsunoda teaches retransmitting device receiving a redundancy request, and in response to the redundancy request, setting the replication flag (e.g., see col. 24 lines 37-64 and col. 26 lines 22-49). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the redundant request in Schuster-DeLuca as taught by Tsunoda because such redundant request would enable the lost packets to be retransmitted. Thus, reliability of the transmission would be guaranteed

Regarding claim 21, Schuster-DeLuca does not explicitly teach retransmitting device receiving a redundancy request; and in response to the redundancy request, setting the replication flag. However, Tsunoda teaches retransmitting device receiving a redundancy request, and in response to the redundancy request, setting the replication flag (e.g., see col. 24 lines 37-64 and col. 26 lines 22-49). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the redundant request in Schuster-DeLuca as taught by Tsunoda because such redundant request would enable the lost packets to be retransmitted. Thus, reliability of the transmission would be guaranteed

Regarding claims 22, 23, 41, 42, 61 and 62, Schuster-DeLuca-Tsunoda teaches

the redundancy request is issued from the first/second device (Tsunoda, col. 24 lines

53-64).

5.   Claims 11, 12, 18, 19, 31, 32, 37, 38, 52, 53, 58 and 59 are rejected under 35

U.S.C. 103(a) as being unpatentable over Schuster in view of DeLuca in further view of

Dedrick (US 5,754,787).

Regarding claims 11, 31, 32, 37, 52 and 58, Schuster-DeLuca does not explicitly

teach the first device transmits the original voice data through an associated first

modem, and wherein the method further comprises determining a surplus bandwidth

capacity of the first modem; and setting replication flag if the surplus bandwidth capacity

is higher than a threshold. However, Dedrick teaches the first device transmits the

original voice data through an associated first modem (e.g., see col. 12 lines 45-52),

and wherein the method further comprises determining a surplus bandwidth capacity of

the first modem, and setting replication flag if the surplus bandwidth capacity is higher

than a threshold (e.g., see col. 12 lines 38-44). Therefore, it would have been obvious to

a person of ordinary skill in the art at the time the invention was made to combine

determining surplus bandwidth capacity of the modem in Schuster-DeLuca as taught by

Dedrick because such bandwidth capacity determination would ensure enough free

bandwidth to provide high quality transmission of data. This would have increased the

value of existing electronic distribution networks (Dedrick, col. 2 lines41-42).

Regarding claims 12, 38, 53 and 59, Schuster teaches generating the redundant

data (col. 13 lines 18-20). Schuster-DeLuca does not explicitly teach determined surplus

bandwidth capacity. However, Dedrick teaches the determined surplus bandwidth

capacity (e.g., see col. 12 lines 38-44). Therefore, it would have been obvious to a

person of ordinary skill in the art at the time the invention was made to combine the

determined surplus bandwidth capacity in Schuster-DeLuca as taught by Dedrick

because such the determined surplus bandwidth capacity would ensure enough free

bandwidth to provide high quality transmission of data. This would have increased the

value of existing electronic distribution networks (Dedrick, col. 2 lines41-42).

Regarding claim 18, Schuster-DeLuca does not explicitly teach determining a

surplus network bandwidth for transmitting the redundant data, and setting the

replication flag if the surplus network bandwidth is higher than a threshold. However,

Dedrick teaches, determining a surplus network bandwidth for transmitting the

redundant data, and setting the replication flag if the surplus network bandwidth is

higher than a threshold (e.g., see col. 12 lines 38-44). Therefore, it would have been

obvious to a person of ordinary skill in the art at the time the invention was made to

combine the determined surplus network bandwidth in Schuster-DeLuca as taught by

Dedrick because such network bandwidth determination would ensure enough free

bandwidth to provide high quality transmission of data. This would have increased the

value of existing electronic distribution networks (Dedrick, col. 2 lines41-42).

Regarding claim 19, Schuster-DeLuca teaches generating the redundant data
(col. 13 lines 18-20). Schuster does not explicitly teach determined surplus network
bandwidth. However, Dedrick teaches the determined surplus network bandwidth (e.g.,
see col. 12 lines 38-44). Therefore, it would have been obvious to a person of ordinary
skill in the art at the time the invention was made to combine the determined surplus
network bandwidth in Schuster-DeLuca as taught by Dedrick because such the
determined surplus network bandwidth would ensure enough free bandwidth to provide
high quality transmission of data. This would have increased the value of existing
electronic distribution networks (Dedrick, col. 2 lines41-42).

6.   Claims 13, 20 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Schuster in view of DeLuca in view Dedrick (US 5,754,787) in further view of
Sidhu et al (Sidhu) (US 6,366,959).

Regarding claims 13 and 39, Schuster- DeLuca-Dedrick does not explicitly teach
inputting a size of a jitter buffer; and setting a redundancy for generating the redundant
data in accordance with the inputted jitter buffer size. However, Sidhu teaches inputting
a size of a jitter buffer; and setting a redundancy for generating the redundant data in
accordance with the inputted jitter buffer size (e.g., see col. 20 lines 22-44). Therefore, it
would have been obvious to a person of ordinary skill in the art at the time the invention
was made to combine the jitter buffer size in the combination of teachings of Schuster-

DeLuca- Dedrick as taught by Sidhu because it was conventionally deployed in the art to maximize the quality of data stream for each of particular real time data application.

Regarding claim 20, the combination of teachings of Schuster, DeLuca and Dedrick does not explicitly teach inputting a size of a jitter buffer; and setting a redundancy for generating the redundant data in accordance with the inputted jitter buffer size. However, Sidhu teaches inputting a size of a jitter buffer; and setting a redundancy for generating the redundant data in accordance with the inputted jitter buffer size (e.g., see col. 20 lines 22-44). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the jitter buffer size in the combination of teachings of Schuster, DeLuca and Dedrick as taught by Sidhu because it was conventionally deployed in the art to maximize the quality of data stream for each of particular real time data application.

Response to Arguments

7.   Applicant's arguments with respect to claims 1-62 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Oanh Duong whose telephone number is (571) 272-

3983. The examiner can normally be reached on Monday- Friday, 9:30AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

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Center (EBC) at 866-217-9197 (toll-free).

O.D
May 25, 2006
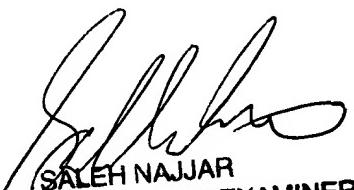
SALEH NAJJAR
SUPERVISORY PATENT EXAMINER